

# **Solar Cathodic Protection**

**Know Before You Go**

***Alabama Public Service Commission Gas Pipeline Safety***

***32<sup>nd</sup> Annual Seminar***

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***Montgomery, Alabama***

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**[www.cathodicprotection.com](http://www.cathodicprotection.com)**

# Let's Talk Photovoltaics

When to Use Solar

Consider This...

Long Term Operations

Can solar power solve my problems in remote areas cost effectively?

What happens at night when the panels are not lit?

How maintenance-free is my new solar CP system?

# The Solar Solution

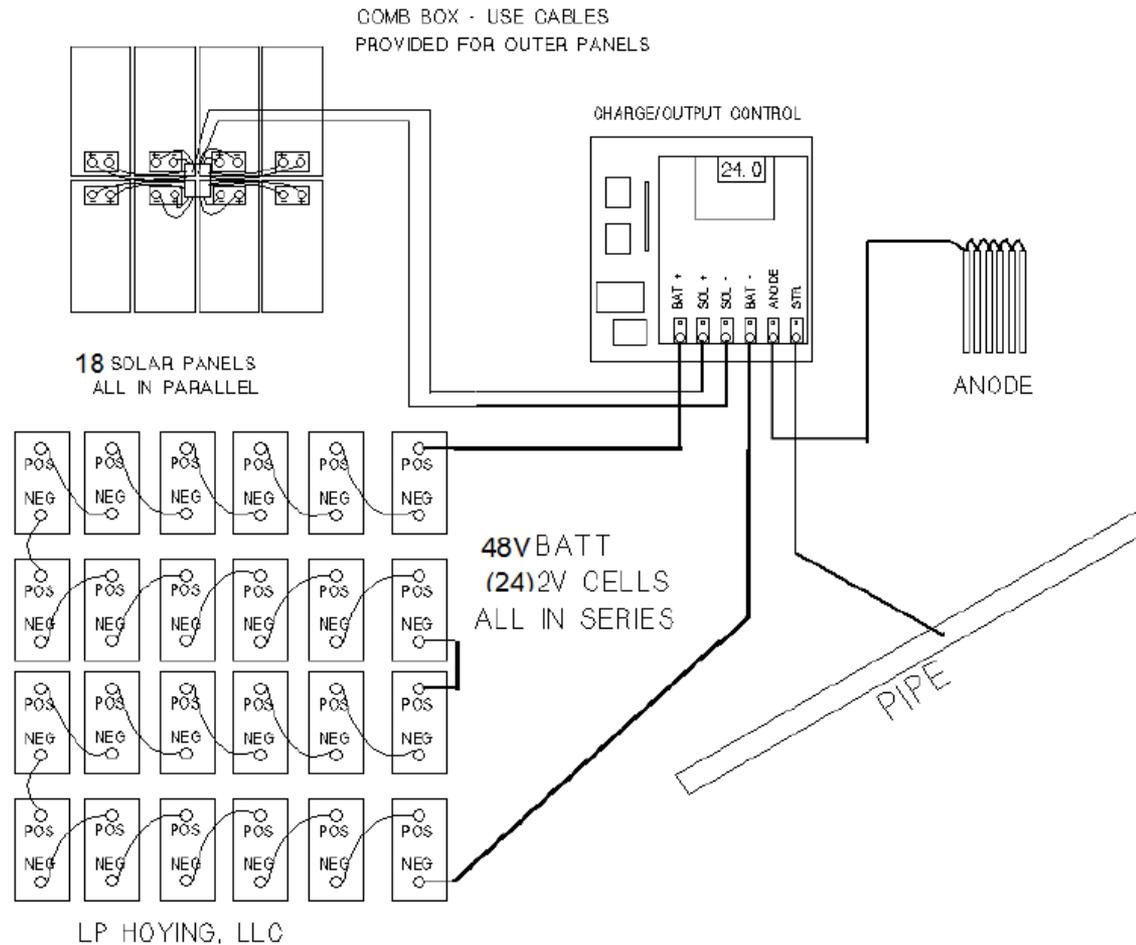
- **Photovoltaic Panels**
- **Batteries**
- **Charge Controller**
- **Output Controller**
- **Support Structure**
- **Your favorite Anode Bed**



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# •The Basic Diagram



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# • Behind the Curtain

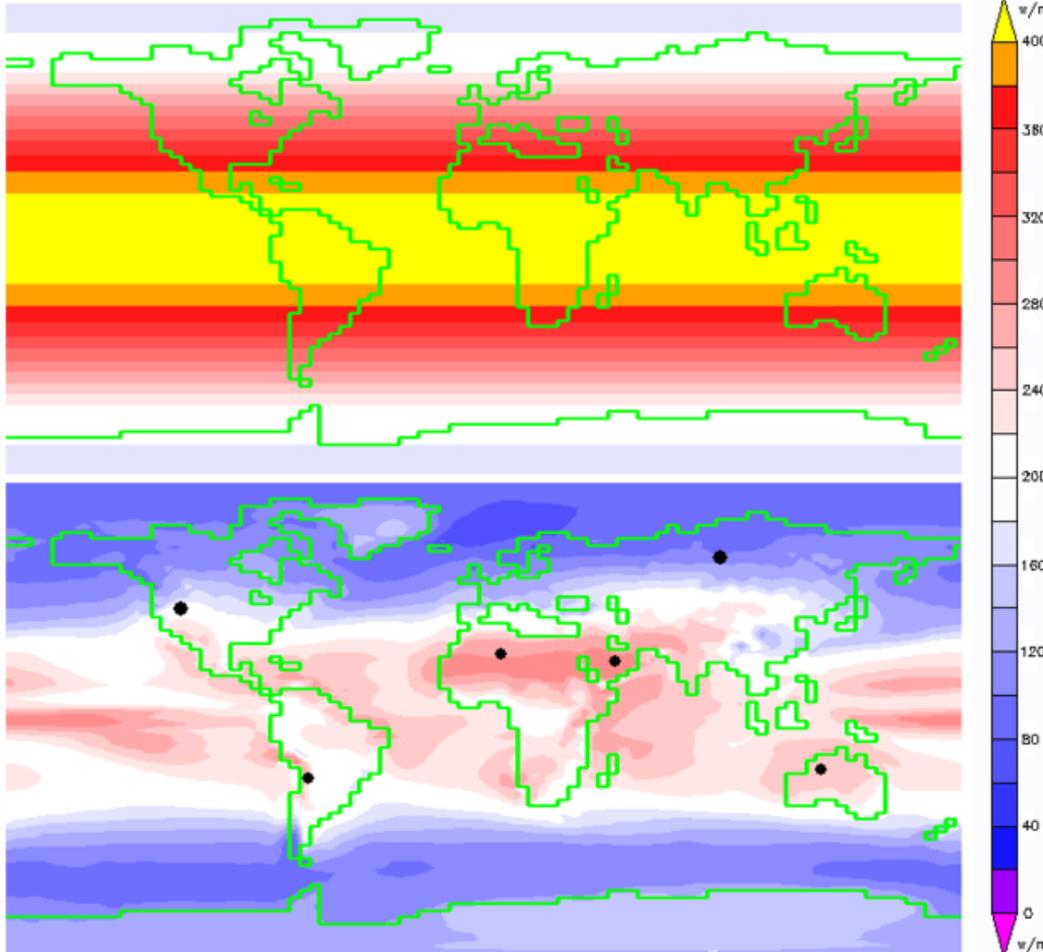


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# • Photovoltaics – All About The Sun



**Insolation:** energy per unit time per unit area of Earth's surface

- Latitude
- Time of year
- Local Weather
- Cover

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# Considerations

- **More CP Current = More Panels & Batteries**
- **Excellent View of the Southern Sky**
- **Theft and Vandalism**
- **Design, Installation & Setup requires Trained Personnel**
- **Use & Monitoring requires Trained Personnel**
- **Equipment Costs are not for the Faint of Heart**
- **And it's very heavy**



# Operating the System

- **Very different from Rectifiers**
- **Panel Life: 80% at 25 Years**
- **Battery Life: service conditions dependent**
- **Consider Remote Monitoring**
  - Cellular may not do it
- **Having parts on hand when traveling to remote locations**
- **Use requires Trained Personnel**



# Questions

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